



STATEMENT OF BASIS
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 BAQ Air Permitting Division

Company Name	Southern Asphalt - Conway	Permit Writer:	Hetal Patel
Permit Number:	9900-0474-CB	Date:	February 2, 2018

hDATE APPLICATION RECEIVED: August 28, 2017; revised October 10, 2017 and January 22, 2018

FACILITY DESCRIPTION

Southern Asphalt Inc. operates a 225 ton per hour drum mix asphalt plant.

PROJECT DESCRIPTION

The facility is requesting a Synthetic Minor Construction Permit to replace existing 225 ton/hr drum mix plant with a new 350 tons/hr drum mix plant. The new plant will consist of the following equipment:

AD01:	350 tons/hr Drum Mix Asphalt Plant 100 Million Btu/hr aggregate dryer equipped with a low NOx burner controlled by 62,000 CFM baghouse (CD01) (dryer burns No. 2 and No. 4 fuel oils)
CFB01:	350 tons/hr Cold Feed Bin
RB01:	175 tons/hr RAP Bin
HOH01:	1.8 million Btu/hr Hot Oil Heater (burns propane only)
AC01:	40,000 gallon Liquid Asphalt Tank #1
LS01:	900 BBL Lime Silo with bin vent (CD02)
FT01:	17,000 gallon #2 Fuel Oil Tank
FT02:	15,000 gallon #4 Fuel Oil Tank

The only equipment that is not being replaced are the two 200 ton, each, asphalt silos (AS01 and AS02).

SOURCE TEST REQUIREMENTS

Per Section 60.93 of 40 CFR 60, Subpart I, Standards of Performance for Asphalt Concrete Plants, asphalt plants are subject to the testing requirements of Section 60.8 - within 60 days after achieving the maximum production rate, but not later than 180 days after initial startup the facility will have to conduct Method 5 and Method 9 initial source tests on the baghouse exhaust. The new plant will have to comply with this requirement.

Per S.C. Regulation 61-62.5, Standard No. 4, Section XII – Periodic Testing, the owner/operator of an asphalt plant shall perform scheduled periodic tests for particulate matter emissions every two (2) years.

EMISSIONS

FACILITY WIDE EMISSIONS (TPY)					
Pollutant	Existing Plant		New Plant		Net Change
	Uncontrolled	Controlled/ Limited	Uncontrolled	Controlled/ Limited	Controlled/ Limited
PM	27,628.14	36.06	42,970.13	32.71	-3.35
PM ₁₀	6,432.68	22.26	10,002.86	20.56	-1.7
PM _{2.5}	1,500.26	2.62	2,333.67	2.59	-0.03
SO ₂	60.29	46.70	88.92	43.50	-3.2
NO _x	55.08	42.19	85.09	42.37	+0.18
CO	131.05	100	203.71	100	---
VOC	47.43	36.16	73.77	36.16	--
Lead	0.01	0.01	0.02	0.01	---
Acrolein	0.0256	0.0195	0.0399	0.0195	---



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FACILITY WIDE EMISSIONS (TPY)					
Pollutant	Existing Plant		New Plant		Net Change
	Uncontrolled	Controlled/ Limited	Uncontrolled	Controlled/ Limited	Controlled/ Limited
Benzene	0.3903	0.2975	0.6072	0.2971	---
Cadmium	4.0406E-04	3.0796E-04	6.2853E-04	3.0752E-04	---
Formaldehyde	3.1415	2.3943	4.8868	2.3910	---
Mercury	2.5623E-03	1.9529E-03	3.9858E-03	1.9501E-03	---
Nickel	0.0621	0.0473	0.0966	0.0473	---
POM	9.2047E-01	7.0155E-01	1.4318	7.0056E-01	---
Propionaldehyde	1.2812E-01	9.7644E-02	1.9929E-01	9.7507E-02	---
Quinone	0.1577	0.1202	0.2453	0.1200	---
Toluene	2.8740	2.1905	4.4707	2.1874	---
Total HAPs	10.7346	8.1815	16.6983	8.17	---

Existing Plant Emissions were taken from relocation application received 3/12/2014.

The limited/controlled emissions from the new plant decreases and/or are approximately the same as the existing plant because CO emissions is the limiting factor. To limit the CO emission to less than 100 TPY, plant production (tons HMA/yr) is restricted. The production of the new plant is restricted to below 1,500,100 tons HMA/yr whereas the existing plant was restricted to a production limit of 1,502,220 tons HMA/yr. The general permit limits production to less than 1,220,000 tons HMA/yr. Therefore, the controlled/limited emissions will be less than those presented here.

OPERATING PERMIT STATUS

The existing plant 9900-0474 operates under the General Conditional Major Operating Permit for Asphalt Plants. The facility will remain a conditional major source and will need to request the General Conditional Major Operating permit for Asphalt Plants once the new plant is constructed and operational.

REGULATORY APPLICABILITY REVIEW

REGULATORY APPLICABILITY REVIEW	
Regulations	Comments/Periodic Monitoring Requirements
Section II.E – Synthetic Minor	The existing plant y has synthetic minor limits that were established on February 21, 2006. The new plant will have to comply with the existing established synthetic minor limits.
Standard No. 1	The new plant does not contain any permitted fuel burning operation – the dryer is direct fired. The hot oil heater, rated at 1.8×10^6 BUT/hr and burning propane, meets the definition of a fuel burning operation but is an exempt source.
Standard No. 4	This standard specifies emission standards for specific as well as general process industries. This facility is subject to the requirements outlined in Section VI, Hot Mix Asphalt Manufacturing: <ul style="list-style-type: none"> Per S.C. Regulation 61-62.5, Standard No. 4, Section VI(A), the 350 ton/hr plant is limited to an allowable PM emission rate of 65 lb/hr.



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Regulations	Comments/Periodic Monitoring Requirements
	<ul style="list-style-type: none"> Per S.C. Regulation 61-62.5, Standard No. 4, Section VI(B), the HMA plant shall be equipped with a fugitive dust and/or fugitive emissions control system which shall be operated and maintained in such a manner as to reduce to a minimum the emissions of particulate matter from any point other than the stack outlet. Per S.C. Regulation 61-62.5, Standard No. 4, Section VI(C), the maximum allowable stack opacity from hot mix asphalt manufacturing shall be 20%. <p>Per S.C. Regulation 61-62.5, Standard No. 4, Section IX(B), the opacity from all other equipment shall be no greater than 20%.</p> <p>This facility will have non-enclosed operations and so all of the requirements specified by Section X apply. The facility will have a BMP.</p> <p>Per S.C. Regulation 61-62.5, Standard No. 4, Section XII(D), the new plant will have to conduct an initial performance test for PM emissions then every two years after the initial test.</p>
Standard No. 5.2	<p>This standard applies to any stationary source that emits or has the potential to emit NO_x generated from fuel combustion constructed after June 25, 2004 or any existing source where a burner assembly is replaced after June 25, 2004.</p> <p>Per Section I(B)2, ID HOH (hot oil heater) is exempt from this Standard.</p> <p>Per, Section I(b)(15), Portable sources such as asphalt plants are considered existing sources only and become existing affected sources when the burner assembly is replaced under Section (1)(A)(2). Therefore, aggregate dryer is considered an existing source.</p> <p>Any existing source where a burner assembly is replaced with another burner assembly after June 25, 2004, regardless of size or age of the burner assembly to be replaced, shall be replaced with a low NO_x burner assembly or equivalent technology capable of achieving a 30 percent reduction from uncontrolled NO_x emission levels based upon manufacturer's specifications. The replacement of individual components such as burner heads, nozzles, or windboxes does not trigger this requirement. An exemption from this requirement shall be granted when a single burner assembly is being replaced in a source with multiple burners due to non-routine maintenance. The dryer is equipped with a low NO_x burner.</p>
Standard No. 7	<p>Asphalt plant is not listed as one of the 28 specific industry types for which PSD applicability is triggered at 100 TPY. The facility's potential emissions of PM, PM₁₀, and PM_{2.5} are, however, in excess of 250 TPY, and the facility is requesting a construction permit with federally enforceable limits to avoid PSD major source status. This standard does not apply.</p>



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REGULATORY APPLICABILITY REVIEW

Regulations	Comments/Periodic Monitoring Requirements
61-62.6	<p>This facility will be a non-enclosed operation which is capable of fugitive PM emissions and so all sections of Section III are applicable except Section III(b). Section III(b) applies to case-by case restrictions and requirements. No case-by-case restrictions are required for this facility.</p> <p>Fugitive particulate matter emissions from this process will be controlled in such a manner that they do not create an undesirable level of air pollution.</p>
40 CFR 60 and 61-62.60	<p>This facility is subject to 40 CFR 60, Subpart A and Subpart I, Standards of Performance for Asphalt Concrete Plants, and S.C. Regulation 61-62.60 Subparts A and Subpart I. See permit for details.</p> <p>This facility is not subject to 40 CFR 60, Subpart OOO – Standards of Performance for Nonmetallic Mineral Processing Plant because it does not have a crusher or grinding mill.</p>

AMBIENT AIR STANDARDS REVIEW

Regulations	Comments/Periodic Monitoring Requirements
Standard No. 2	This facility has demonstrated compliance with this standard through modeling; see modeling summary dated January 10, 2018. No operational restriction has been established to ensure compliance with the modeled emission rates.
Standard No. 7.c	
Standard No. 8 (state only)	

PUBLIC NOTICE

This construction permit(s) will undergo a 30-day public notice period to establish less than 250 TPY of PM and 100 TPY of PM₁₀, PM_{2.5}, and CO limits in accordance with SC Regulation 61-62.1, Section II.N. The comment period was open from October 27, 2017 to November 25, 2017 and was placed on the BAQ website during that time period. Comments were received during the comment period.

SUMMARY AND CONCLUSIONS

It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.